

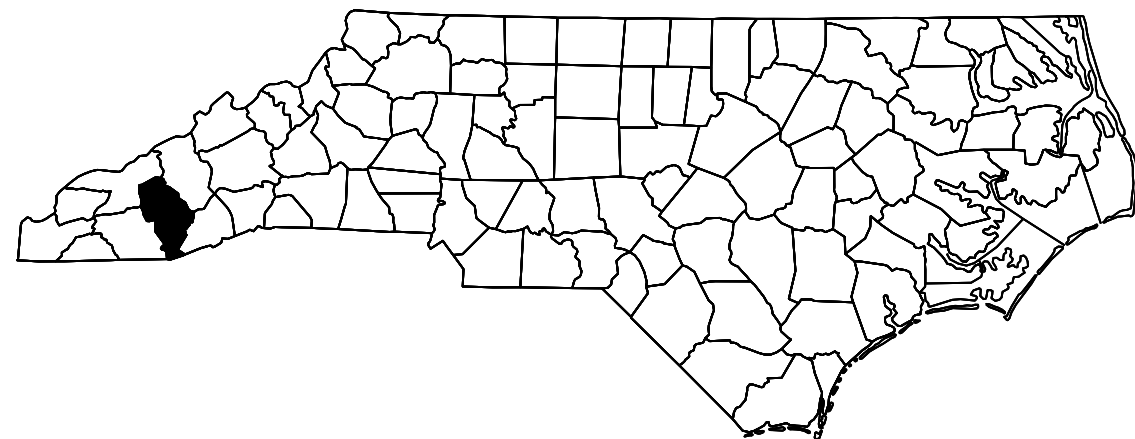
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PROJECT: 14B.205014.8

CONTRACT: DN00556



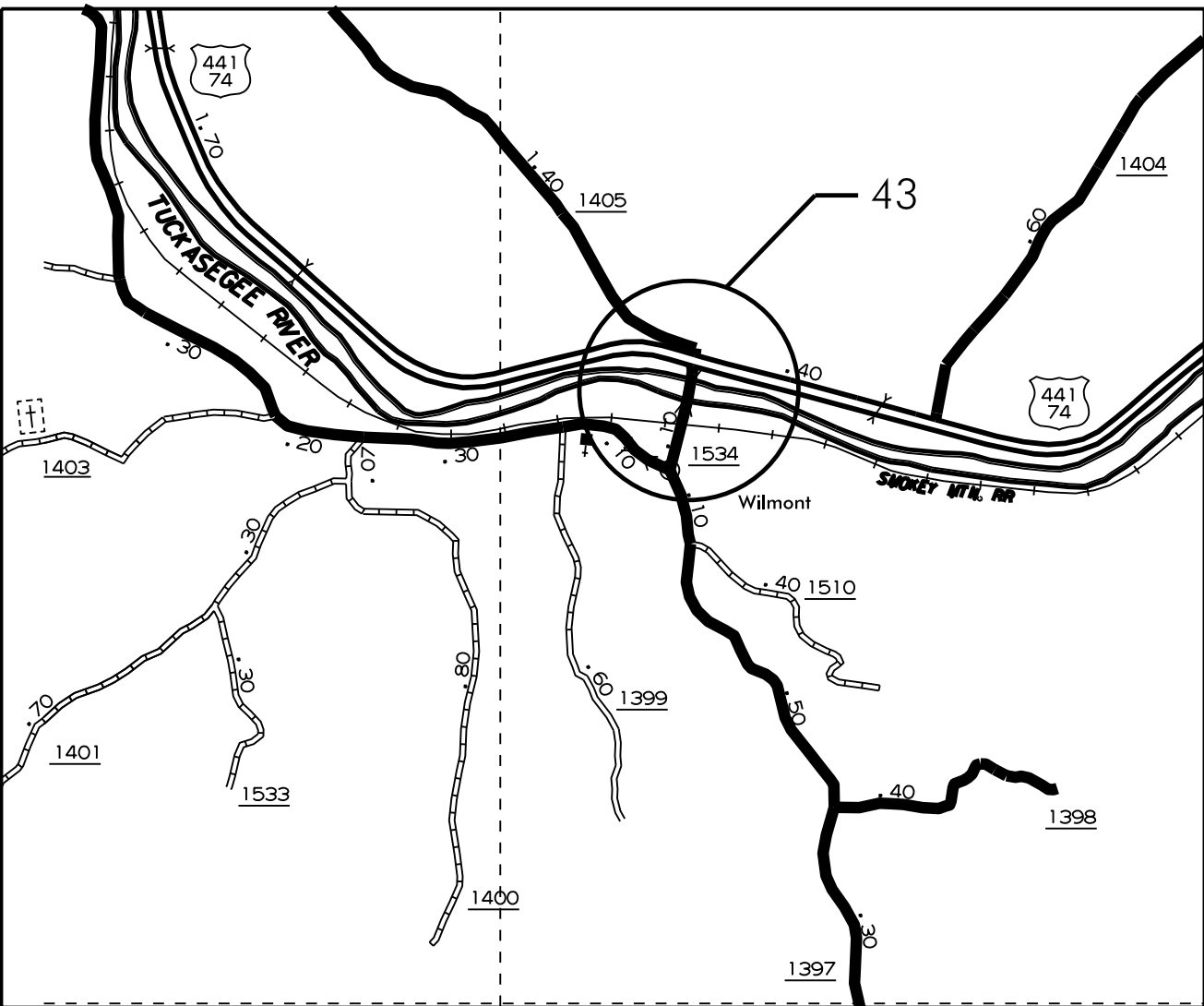
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

JACKSON COUNTY

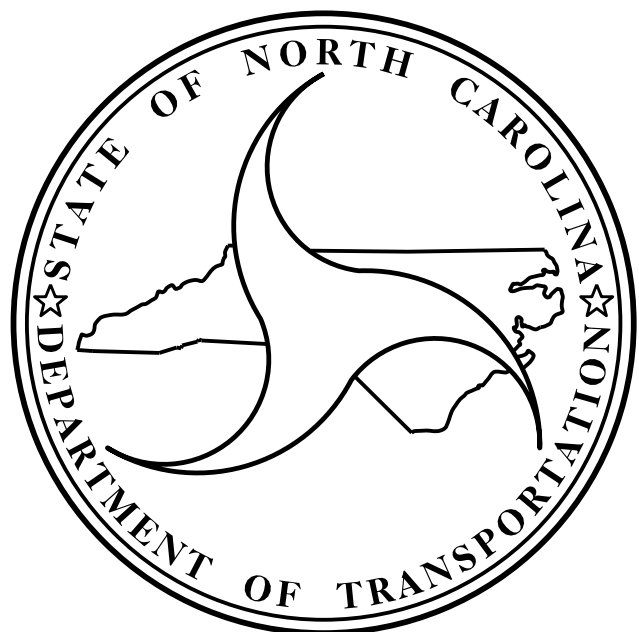
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	14B.205014.8	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
14B.205014.8		P.E.	
14B.205014.8	—	CONST.	

LOCATION: JACKSON COUNTY:  
BRIDGE #43 ON SR 1543 (WILMONT ROAD) OVER THE TUCKASEGEE RIVER

TYPE OF WORK: BRIDGE PRESERVATION – DECK REPAIR OF EXISTING BRIDGE STRUCTURE AND JOINT REPLACEMENT



VICINITY MAP – JACKSON CO.



DESIGN DATA

JACKSON COUNTY  
#43 ADT 2012 = 1,300

PROJECT LENGTH

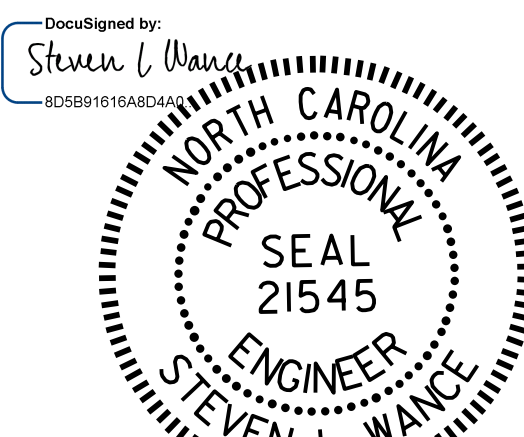
JACKSON COUNTY  
#43 = 0.080 MILE

Prepared in the Office of:  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
STRUCTURES MANAGEMENT UNIT – PRESERVATION & REPAIR GROUP  
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

**KEITH PASCHAL, P.E.**  
PROJECT ENGINEER

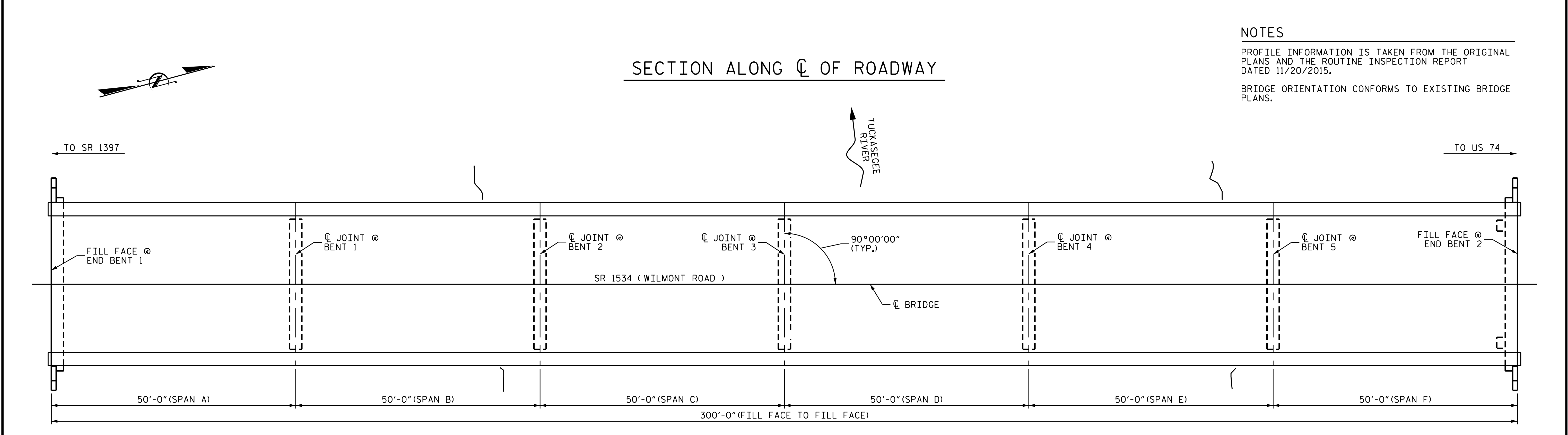
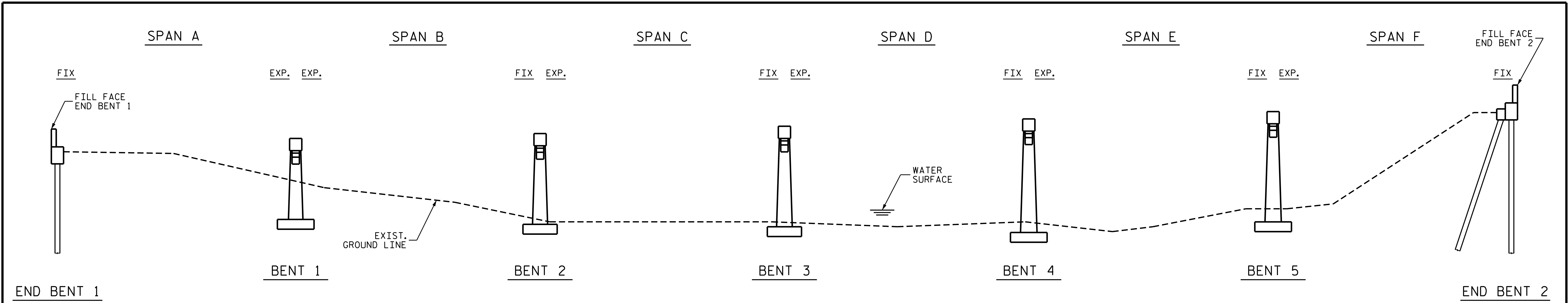
2012 STANDARD SPECIFICATIONS

LETTING DATE:  
JUNE 13, 2017



3/20/2017

**STEVEN L. WANCE, P.E.**  
PROJECT DESIGN ENGINEER



SECTION ALONG CL OF ROADWAY

NOTES  
PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 11/20/2015.  
BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

PLAN

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE USING SCARIFICATION METHODS.
- REPAIR DAMAGED PORTIONS OF THE BRIDGE DECK.
- OVERLAY PREPARED BRIDGE DECK WITH REINFORCED CLASS AA HIGH EARLY STRENGTH CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL FOAM JOINT SEALS.
- GROOVE CONCRETE BRIDGE DECK.
- MILL AND PAVE ASPHALT APPROACHES.

I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.  
RESIDENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_



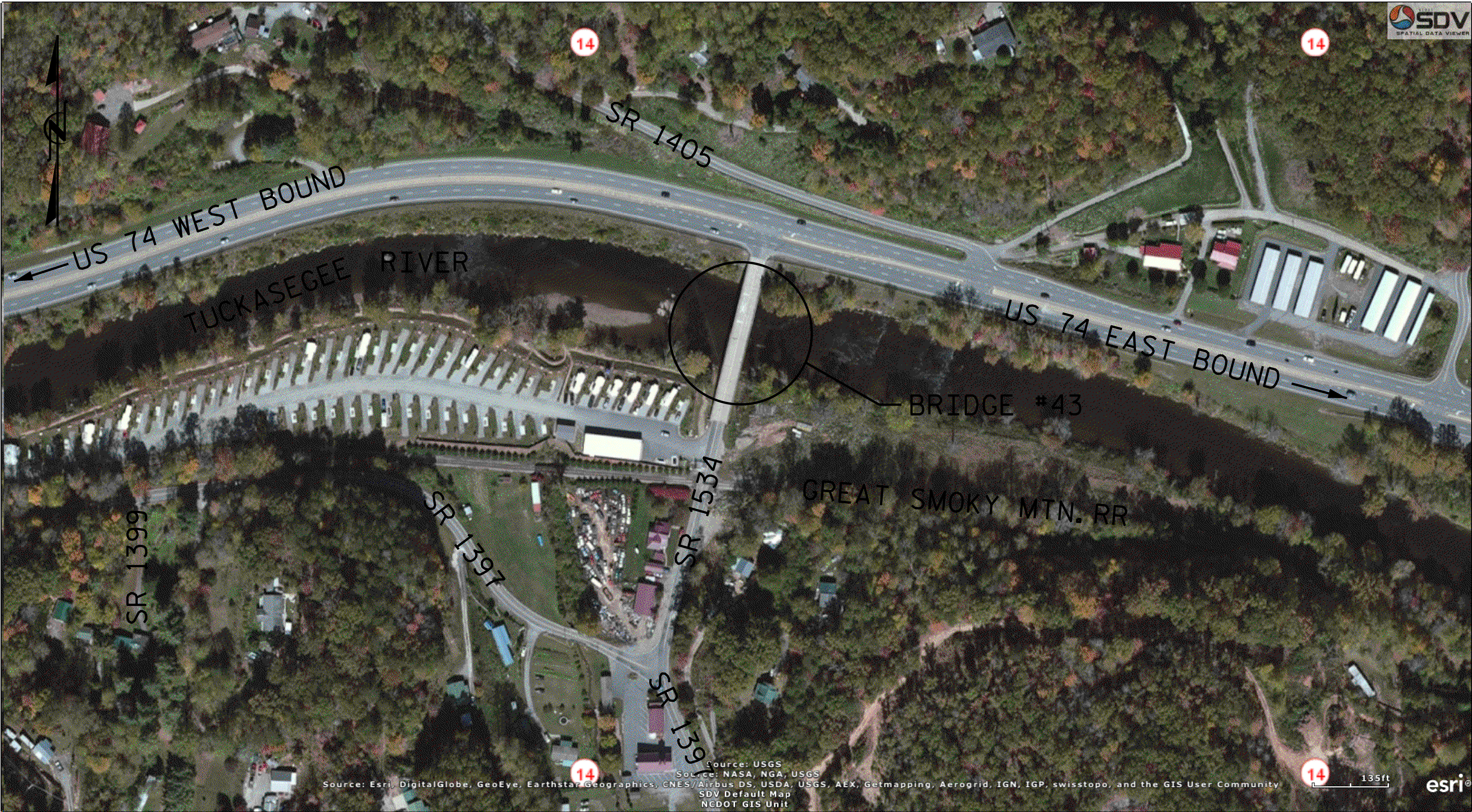
PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
BRIDGE NO. 43

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GENERAL DRAWING FOR BRIDGE ON SR 1534 (WILMONT ROAD) OVER TUCKASEGEE RIVER					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					SHEET NO. S-1 TOTAL SHEETS 8

DRAWN BY : R. PUTK DATE : 09/16  
CHECKED BY : J. YANACONE DATE : 02/17





LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

TOTAL BILL OF MATERIAL									
BRIDGE	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	ASPHALT BINDER FOR PLANT MIX	CONCRETE WEARING SURFACE	GROOVING BRIDGE FLOORS	CLASS II, SURFACE PREPARATION	CLASS III, SURFACE PREPARATION	FOAM JOINT SEALS	SCARIFYING BRIDGE DECK
	SQ. YDS.	TONS	TONS	SQ. FT.	SQ. FT.	SQ. YDS.	SQ. YDS.	LUMP SUM	SQ. YDS.
JACKSON #43	385	65	4	8,390	7,326	144	3.0 *	LUMP SUM	932

\* CLASS III SURFACE PREPARATION IS NOT ANTICIPATED. TOKEN PAY ITEM IS INDICATED FOR PRICING PURPOSES IN CASE UNANTICIPATED REPAIR AREAS ARE ENCOUNTERED.

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECK.

FOR CLASS II SURFACE PREPARATION, CLASS III SURFACE PREPARATION AND SCARIFYING BRIDGE DECK, SEE OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

FOR CONCRETE WEARING SURFACE, SEE SPECIAL PROVISIONS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAY SHALL BE LOCATED ALONG THE CENTERLINE OF THE BRIDGE.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

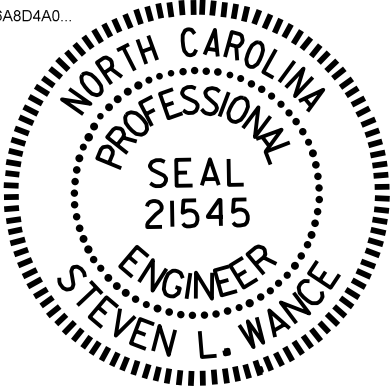
PROJECT NO. 14B.205014.8

JACKSON COUNTY

BRIDGE NO. 43

SHEET 2 OF 2

DocuSigned by:  
Steven L. Wance  
8C5B91616ABD4A0



3/20/2017

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

GENERAL DRAWING  
FOR BRIDGE ON SR 1534  
(WILMONT ROAD)  
OVER TUCKASEGEE RIVER

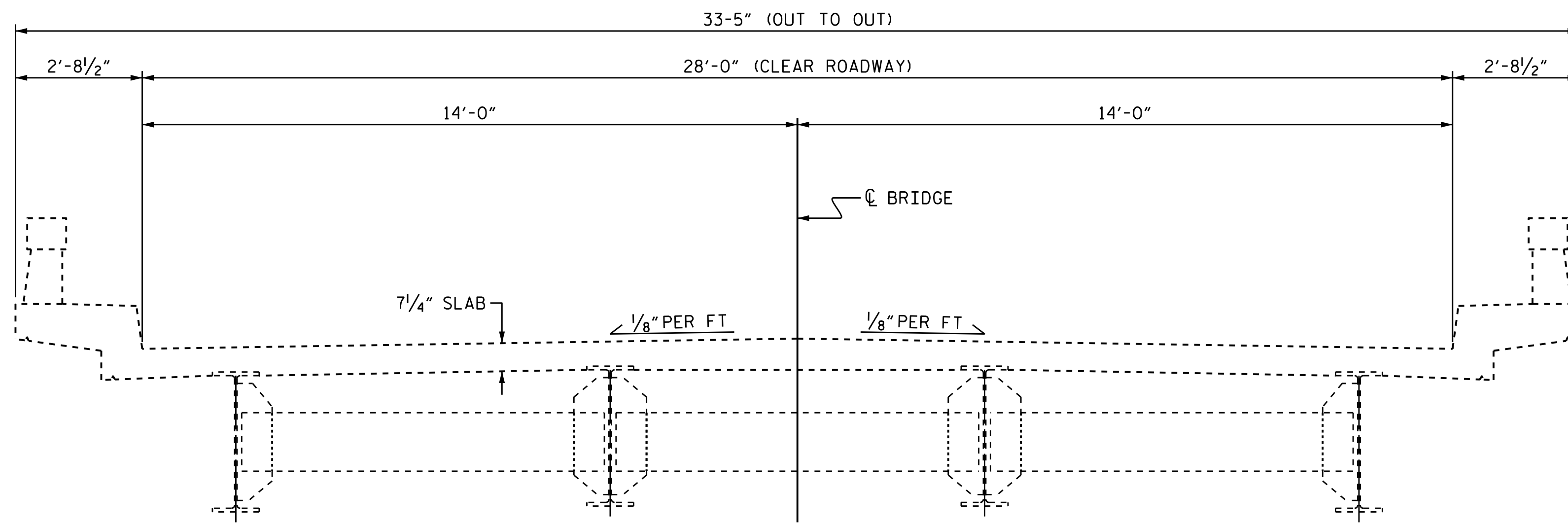
DRAWN BY : R. PUTK DATE : 09/16  
CHECKED BY : J. YANACONE DATE : 02/17

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

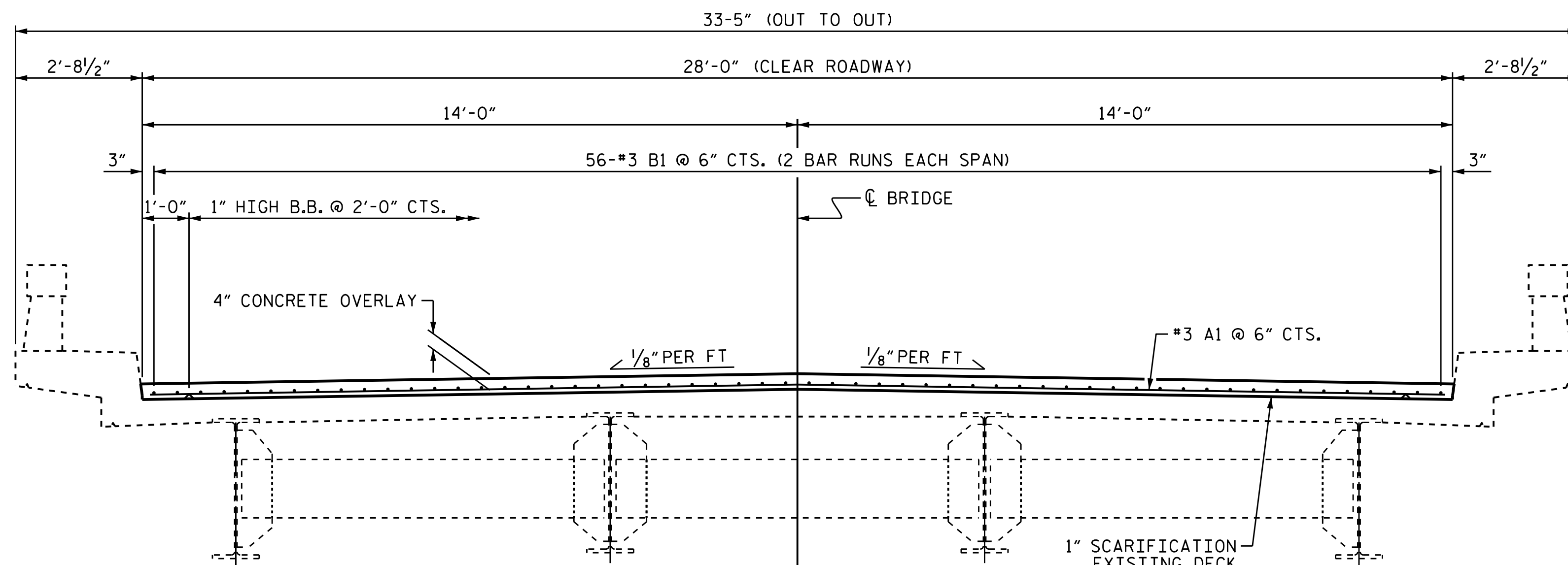
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SHEET NO.
S-2
TOTAL SHEETS
8

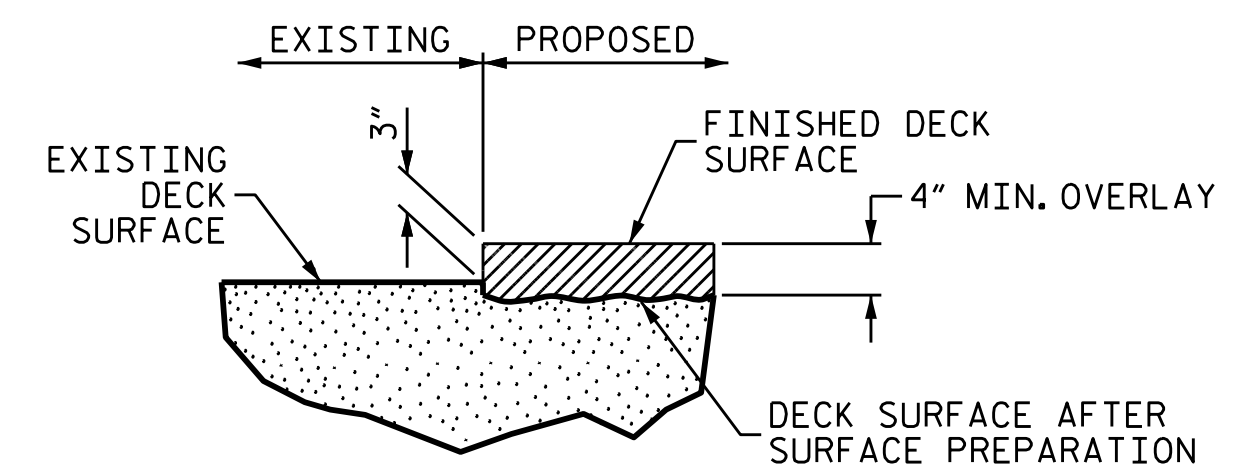




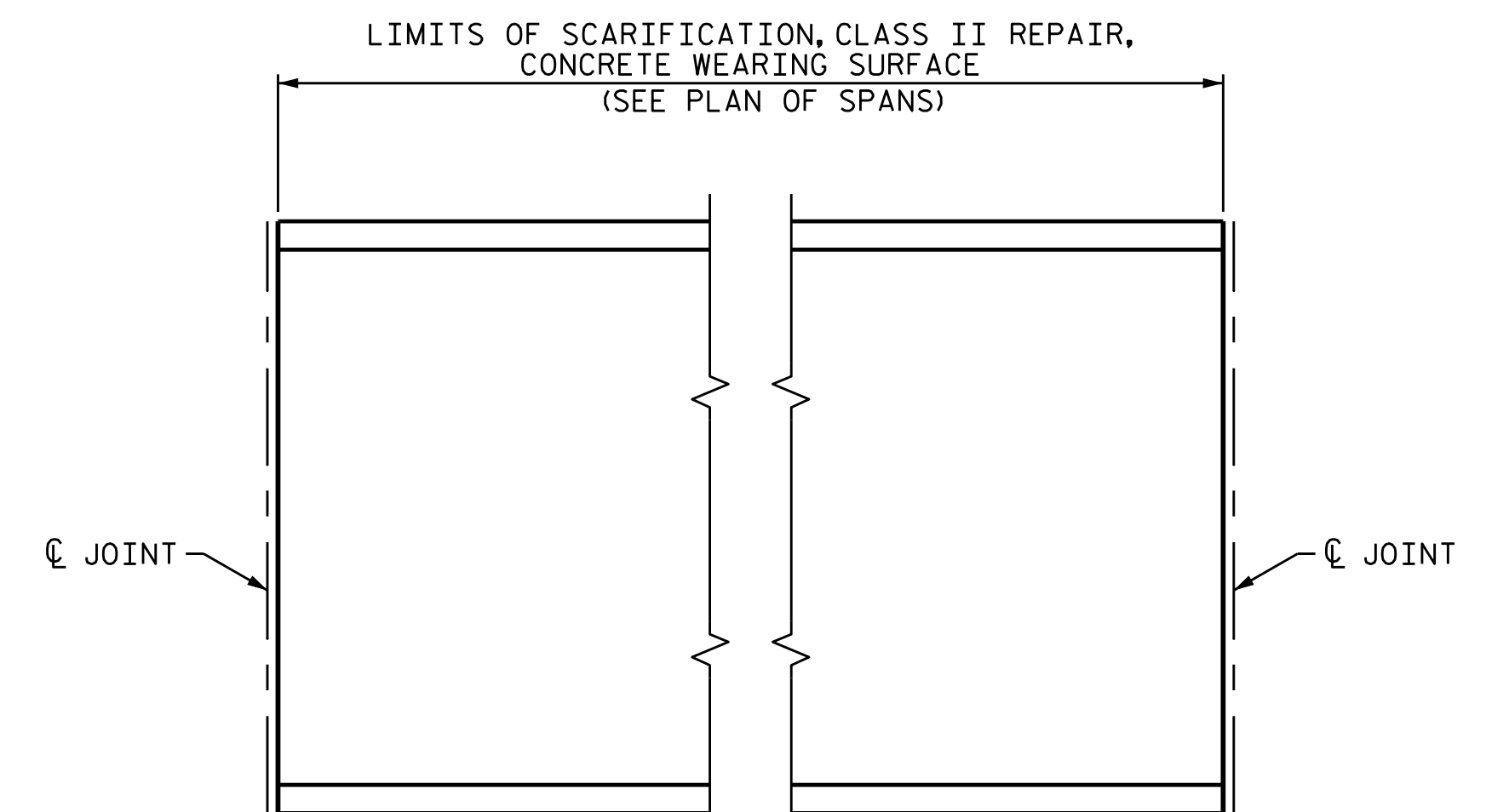
**TYPICAL SECTION**  
(EXISTING)



**TYPICAL SECTION**  
(PROPOSED)



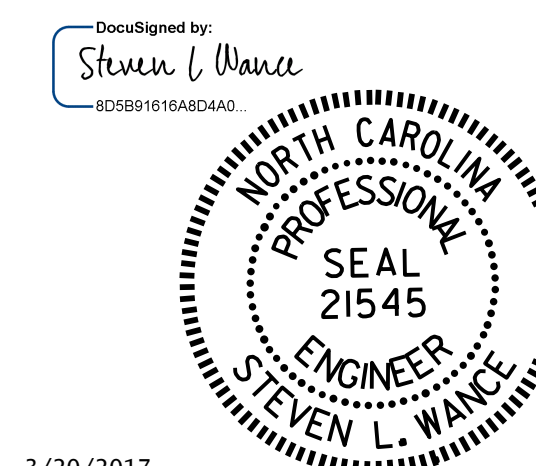
**DETAIL FOR CONCRETE OVERLAY**



**PLAN**

**PAY LIMITS FOR OVERLAY BID ITEMS**

PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
 BRIDGE NO. 43



3/20/2017

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-3
2			4			TOTAL SHEETS 8

DRAWN BY : J. YANNACCONE DATE : 02/2017  
 CHECKED BY : S. WANCE DATE : 02/2017

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NOTES

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTIONS OF THE ADDITIONAL REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

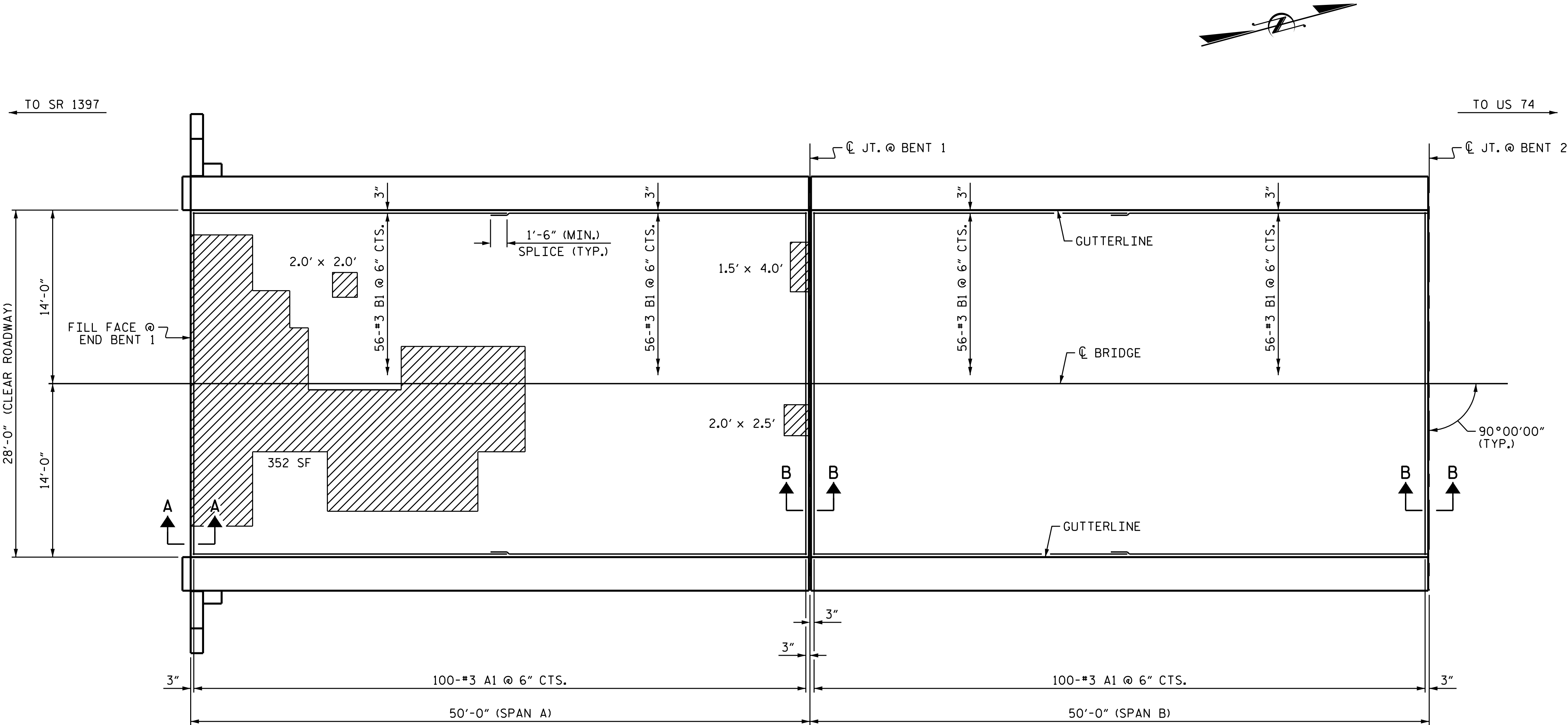
THE UNIT CONTRACT PRICE BID FOR CONCRETE WEARING SURFACE WILL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE CLASS AA CONCRETE.

FOR SECTION A-A AND B-B, SEE "JOINT DETAILS" SHEET.

★ TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSES IN CASE UNANTICIPATED CLASS III REPAIRS ARE ENCOUNTERED.

SUMMARY OF QUANTITIES

SPAN A					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				156 SY	
CLASS II SURFACE PREPARATION				40.8 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,399 SF	
GROOVING BRIDGE FLOORS				1,229 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					20.3 CY
SPAN B					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				155 SY	
CLASS II SURFACE PREPARATION				0.0 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,398 SF	
GROOVING BRIDGE FLOORS				1,217 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					17.3 CY

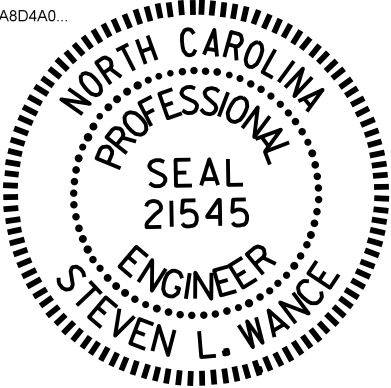


- APPROX. CLASS II AREA
- APPROX. CLASS III AREA

PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
BRIDGE NO. 43

SHEET 1 OF 3

DocuSigned by:  
Steven L Wance  
8C9B81616A8D4A82



3/20/2017

DRAWN BY : S. WANCE DATE : 02/2017  
CHECKED BY : J. YANNAKONE DATE : 02/2017

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REVISIONS						SHEET NO.
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1			3			S-4
2			4			TOTAL SHEETS 8

NOTES

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTIONS OF THE ADDITIONAL REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE SUMMARY OF QUANTITIES TABLE.

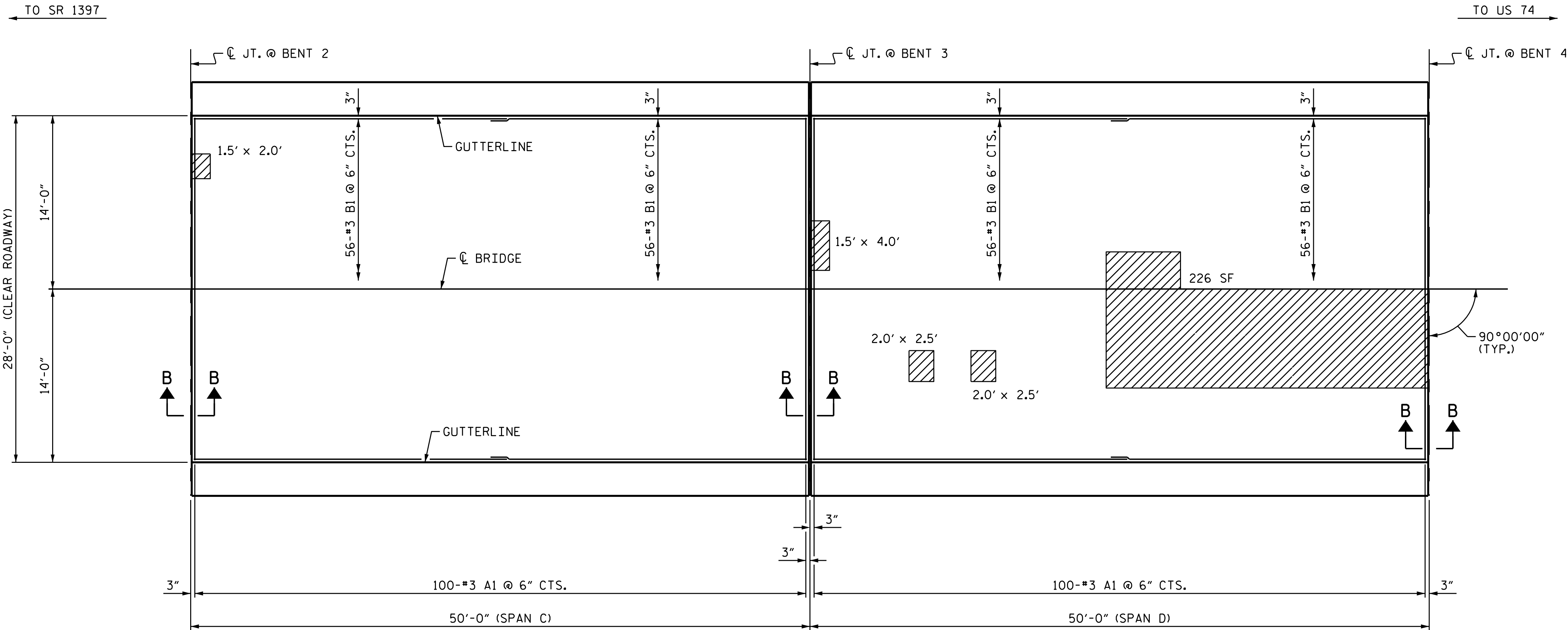
THE UNIT CONTRACT PRICE BID FOR CONCRETE WEARING SURFACE WILL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE CLASS AA CONCRETE.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

★ TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSES IN CASE UNANTICIPATED CLASS III REPAIRS ARE ENCOUNTERED.

SUMMARY OF QUANTITIES

SPAN C					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				155 SY	
CLASS II SURFACE PREPARATION				0.3 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,398 SF	
GROOVING BRIDGE FLOORS				1,217 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					17.4 CY
SPAN D					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				155 SY	
CLASS II SURFACE PREPARATION				26.9 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,398 SF	
GROOVING BRIDGE FLOORS				1,217 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					19.3 CY

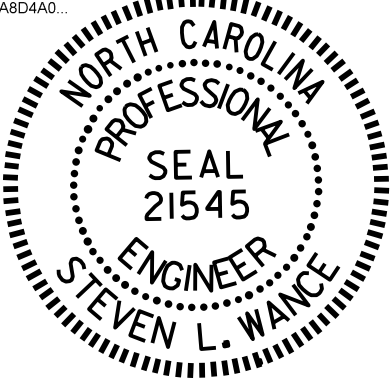


APPROX. CLASS II AREA  
APPROX. CLASS III AREA

PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
BRIDGE NO. 43

SHEET 2 OF 3

Drawn By: Steven L. Wance  
8C9B81616A8D4A8D



3/20/2017

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

PLAN OF SPAN  
SPAN C & D

DRAWN BY : S. WANCE DATE : 02/2017  
CHECKED BY : J. YANNAKONE DATE : 02/2017

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2			4			TOTAL SHEETS 8



NOTES

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THE UNIT CONTRACT PRICE BID FOR CONCRETE WEARING SURFACE WILL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE CLASS AA CONCRETE.

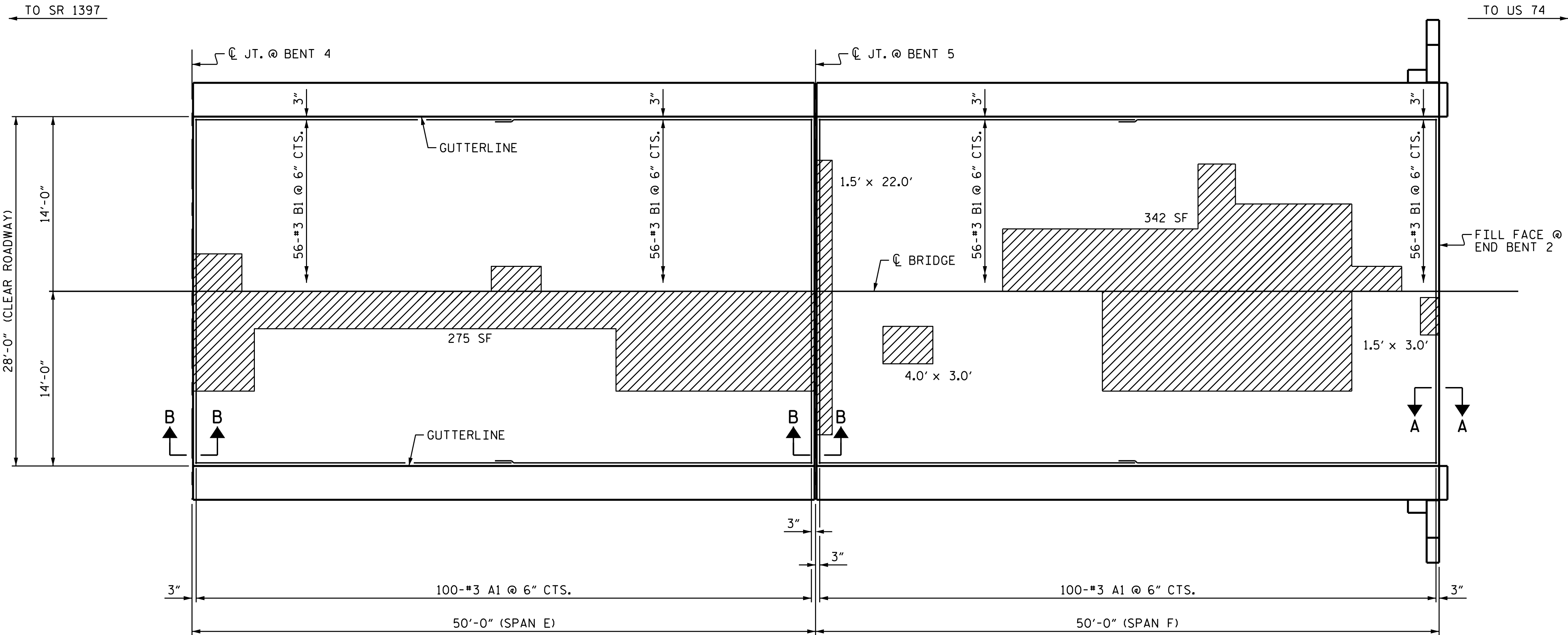
FOR SECTION A-A AND B-B, SEE "JOINT DETAILS" SHEET.

★ TOKEN PAY ITEMS ARE INDICATED FOR PRICING PURPOSES IN CASE UNANTICIPATED CLASS III REPAIRS ARE ENCOUNTERED.

SUMMARY OF QUANTITIES

SPAN E					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				155 SY	
CLASS II SURFACE PREPARATION				30.6 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,398 SF	
GROOVING BRIDGE FLOORS				1,217 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					19.6 CY
SPAN F					
TOP OF DECK REPAIRS					
				ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK				156 SY	
CLASS II SURFACE PREPARATION				43.5 SY	
CLASS III SURFACE PREPARATION				0.5 SY ★	
CONCRETE WEARING SURFACE				1,399 SF	
GROOVING BRIDGE FLOORS				1,229 SF	
BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	100	#3	STR	27'-8"	1,040
* B1	112	#3	STR	25'-7"	1,077
* EPOXY COATED REINFORCING STEEL					2,117 LBS.
CLASS AA CONCRETE FOR CONCRETE WEARING SURFACE					20.5 CY

- APPROX. CLASS II AREA
- APPROX. CLASS III AREA

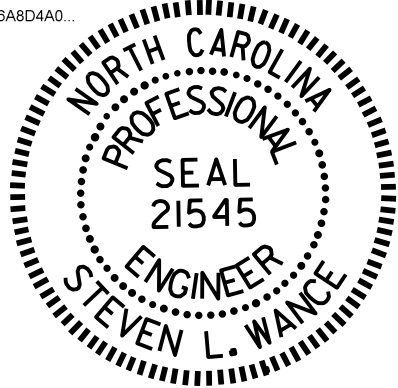


PLAN

PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
BRIDGE NO. 43

SHEET 3 OF 3

DocuSigned by:  
Steven L Wance  
8C9B81616A8D4A82



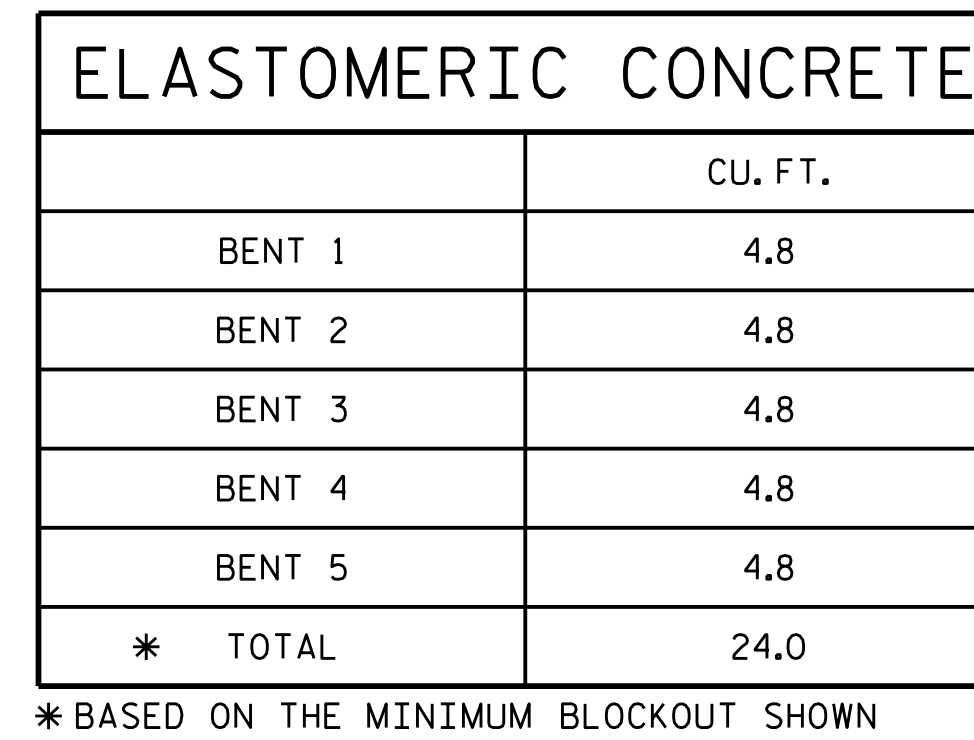
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CHECKED BY : J. YANNACCONE DATE : 02/2017

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REVISIONS						SHEET NO.	
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1			3			TOTAL SHEETS	
2			4			8	





## NOTES

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

THE INSTALLED FOAM JOINT SEAL SHALL BE WATER TIGHT.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

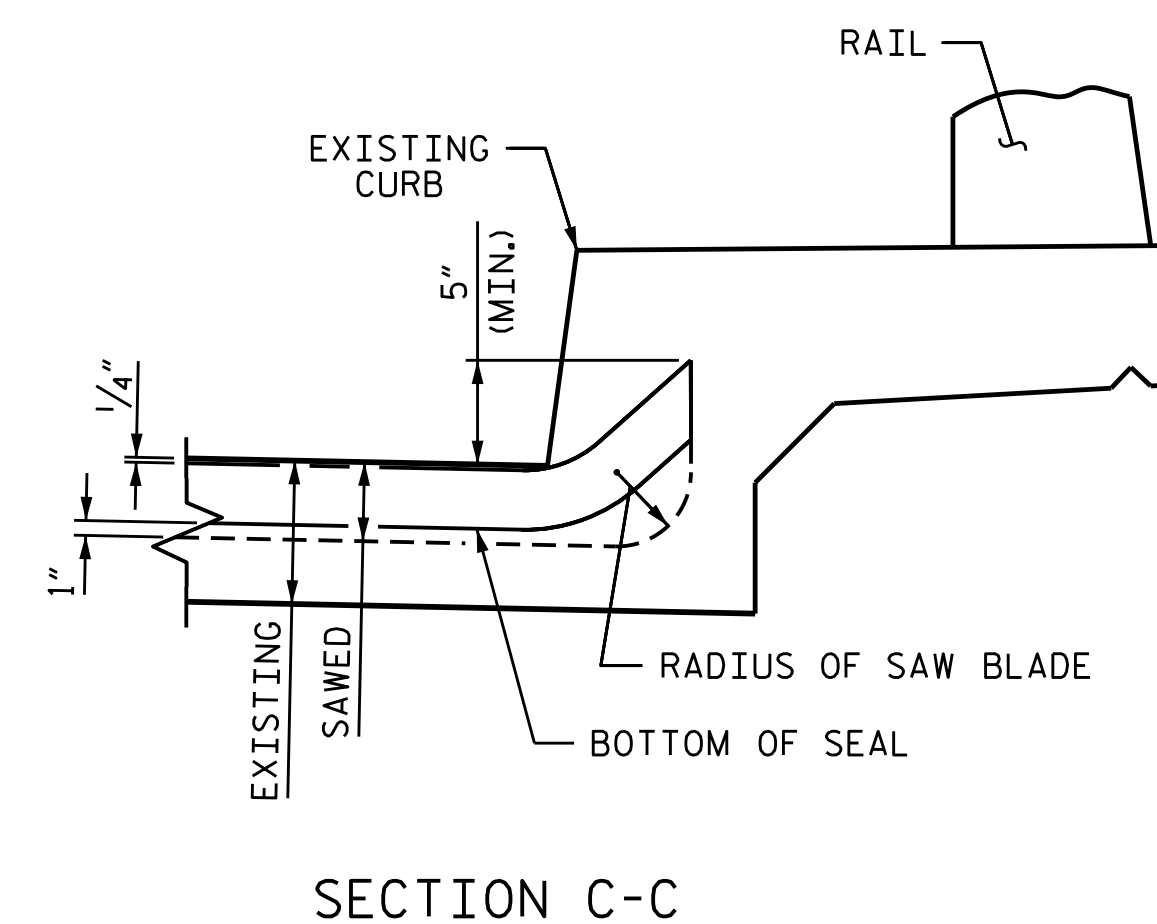
FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

EXISTING

PROPOSED JOINT PRE-SAWED DIMENSIONS

PROPOSED FOAM JOINT SEAL

SECTION B-B



PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
 BRIDGE NO. 43

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

## JOINT DETAILS

DRAWN BY : J. YANNACONE DATE : 02/2017  
CHECKED BY : S. WANCE DATE : 02/2017

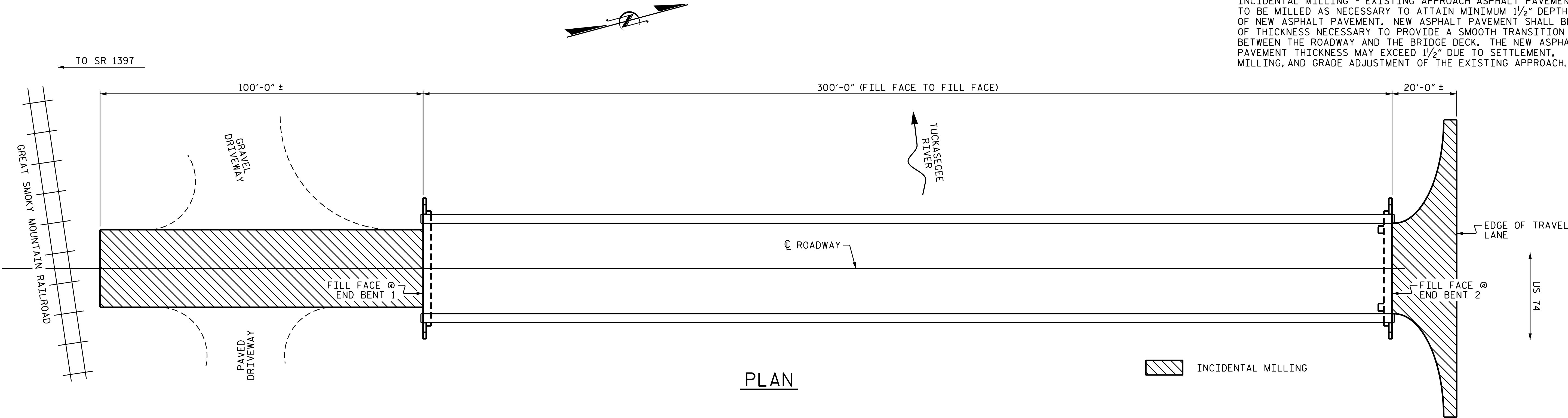
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NO.	BY:	DATE:	NO.	BY:	DATE:	
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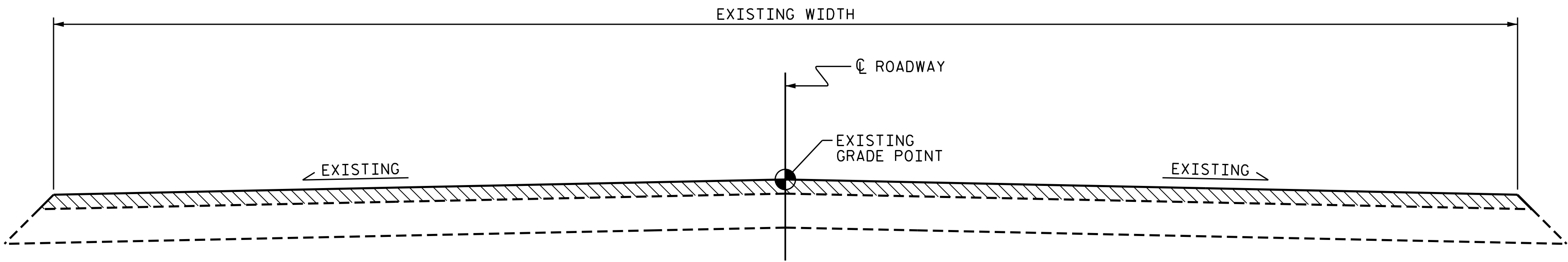


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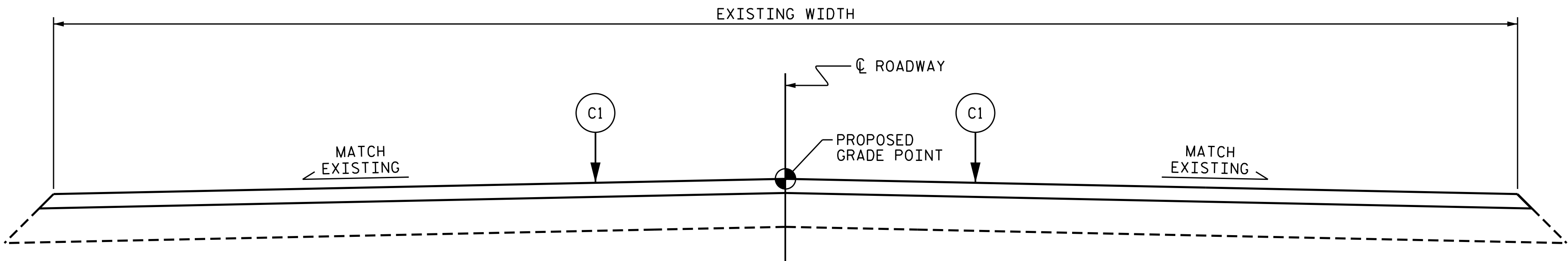
INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1½" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1½" DUE TO SETTLEMENT, MILLING, AND GRADE ADJUSTMENT OF THE EXISTING APPROACH.



PLAN



TYPICAL ROADWAY MILLING SECTION  
(MILL TO MINIMUM 1½" DEPTH)



TYPICAL FINAL ROADWAY SECTION

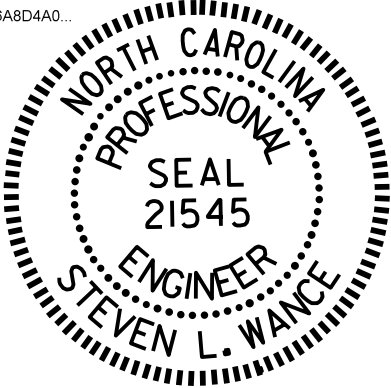
C1	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.
----	--

SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
INCIDENTAL MILLING	385 SQ. YDS.	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	65 TONS	
ASPHALT BINDER FOR PLANT MIX	4 TONS	

PROJECT NO. 14B.205014.8  
JACKSON COUNTY  
BRIDGE NO. 43

DocuSigned by:  
Steven L. Wance  
8D5B91616ABD4A0



3/20/2017

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

APPROACH MILLING  
AND TYPICAL ROADWAY  
SECTIONS

DRAWN BY : J. YANNACCONE DATE : 01/2017  
CHECKED BY : S. WANCE DATE : 02/2017

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SHEET NO.
S-8
TOTAL SHEETS
8